Meeting Description: Michigan Geographic Framework Users Meeting
Date: April 5, 2001 **Time:** 10:00 a.m.
Location: George W. Romney Building, 10th Floor, Michigan Information Center, Small Conference Room

I. Approval of April Meeting Minutes

II. Geographic Framework Program

A. Phase 2 Status

Rob Surber, Michigan Information Center (MIC), distributed a current Michigan Geographic Framework status map of the framework project and reported that the identity point for Wayne County is done. MIC is now doing clean up on trunkline state highway attributes then will start seaming and finish closing polygons including 2000 polygons for SEMCOG and the MIC process. Wayne County is close. MIC is currently working on seaming process for Oakland/Macomb boundary. The northern boundaries (Genesee and Lapeer) of Oakland County and the Washtenaw/Oakland boundary has been finished. Oakland/Wayne will be worked on when Wayne is done and this will free up the Washtenaw/Monroe boundary. There are problems with volume of work involved with the Oakland/Macomb boundary.

B. Polygon Build / Act 51 / Seaming Update

Rob Surber, MIC, reported that Wayne County 1990 polygons are complete.

Everett Root, MIC, added that MIC had to get a copy to Wayne County for their conflation project. MIC then built census tracts and block groups for 1990.

Rob Surber, MIC, stated that MIC has done most of the Phase 3 work for these counties and are now finalizing the seaming portion. MIC is working on seaming prior to sending to Michigan State Industries (MSI). Wayne/Oakland will need more time because of its volume. Wayne County will provide planametric data to help with land and road relationships.

C. 2K TIGER Integration: Tracts and Block Groups

Rob Surber, MIC, distributed a current status map of the Census 2K TIGER integration. MIC is currently working on Monroe and Marquette Counties building census 2000 tracts and block groups. Will be continuing in the Upper Peninsula and the SEMCOG areas and then in the Kent County area. When a county is ready in the SEMCOG area, MIC will work on it. MIC is tagging lines with tract numbers and block group numbers of boundaries. A half a dozen non-visible connector lines have been added to complete the polygons thus far. Roads and hydro's were used the most, therefore MIC did not have to update road referencing. Statewide there are approximately 9,000 block groups and 200,000 blocks. MIC will be sending their completed coverages to SEMCOG and they will be adding lines to complete the block level. Then MIC will take this data back into the master file. Block level P.L. Data is available – racial, voting age population, and total population. Housing units will be available later this summer.

Ann VanSlembrouck, SEMCOG, added that SEMCOG would have to discuss with MIC what to do if they add an arc.

Everett Root, MIC, responded that he has been working with Susan at SEMCOG about this.

Rob Surber, MIC, added that it is especially a problem if it breaks up a road. If it can be hooked to an existing node, it is easier to integrate. Displayed an example of the framework with the new census geography on it. The highest demand for data is at the tract and block group level because of the socio-economic data. MIC will produce hard-copy maps statewide as county map sets. MIC staff is working on the map so that if you do not have a color printer, it may be printed in black and white. This is an output product that most people can use. On the MIC web site are census tract reports and MIC is developing links to go into map. These maps are generated from framework not TIGER.

Bill Enslin, MSU Center for Remote Sensing and GIS, asked if polygon files would be available for distribution.

Rob Surber, MIC, responded that polygon files would be available for distribution. MIC is creating shape file by themes – tracts, block groups, etc. It will be on the MIC web site for download. It will be important to note the version numbers with these products. MIC is taking care to document versions, but users need to learn the version process. Census tracts and block groups will not change throughout the decade. Plan to have the cartographic output complete by mid-June to coincide with the Summary File 1 Data, which is the first release of housing, detailed age data, etc. If interested in learning more about Summary File 1, may check on MIC's or U.S. Bureau of the Census's web sites. P.L. data is designed for redistricting not demographic work. MIC is working with urban area criteria for the federal registry. MDOT is asking MIC to take urbanized boundaries into framework. At this time this is a proposal. There is a lot road funding based on this.

Joyce Newell, Michigan Department of Transportation (MDOT), commented that there are several changes in the proposal. There is concern if miles are urban area or rural area. Funding has to be within the census urbanized boundaries in order to qualify for a place and MDOT can create Federal Highway Administration (FHWA) federal aid urban boundaries that exceed those.

Rob Surber, MIC, stated that we might have a situation where the Census Bureau draws urbanized boundaries, but exclude a highway interchange. MDOT has the right to include it because it is a transportation feature that is an important part of the urban area.

Joyce Newell, MDOT, stated that the Census Bureau felt that some states were allowing loose annexations to take place. The Census Bureau expects the total urban areas to go down and the total urban population to go up.

Rob Surber, MIC, commented that there would be more on this later. MIC is looking to tag framework with that code. Won't lock in until 2002, which would be in the version released later that year.

Joyce Newell, MDOT, stated that MDOT would comment on the fact that splitting urbanized boundaries by cutting across city limits is not convenient for funding purposes.

D. Repositioning Update

Rob Surber, MIC, reported that Ottawa County is being done by another method and would be repositioned as part of partnership work. MIC will be adding more staff to the repositioning process as they finish seaming and Phase 2 work. MIC is estimating half of a 7.5-minute quad per person per day to complete for the road layer and one quarter quad per person per day for all layers.

Joyce Newell, MDOT, stated that MDOT would provide maps of certified roads without physical reference (PR) numbers and roads that are not featured in framework.

Rob Surber, MIC, stated that Wayne County is going through repositioning via conflation to Wayne County centerlines. MIC provided the files to Wayne County. Rob expects to see something in June and is excited to see how this works. Wayne County is getting 95-98% success conflating framework attributions to the highly accurate centerlines of Wayne County. There was a lot of topology coordination between models before conflation took place so road and intersection orders were as consistent as possible.

Bill Enslin, MSU, asked this was just the road network or if it includes the hydro.

Everett Root, MIC, responded that they are working on the roads first.

Rob Surber, MIC, added that Wayne County has a centerline of the hydro and that something else that will have to be looked at. Any node on roads that relate to hydro would be dealt with.

E. Digital Ortho Update

Sherm Hollander, Department of Natural Resources (MDNR), distributed a current Production Status map. This is an on-going project of Federal/State Funding Partnership program that includes the state, United States Geological Survey (USGS), Environmental Protection Agency (EPA), Natural Resource Conservation Service, and Farm Service Agency. The partnership is $1.5 million effort to fill in the holes in the state. Will get first-time digital ortho quad (DOQ) coverage of the entire state when complete. The USGS and MDNR are primary coordinating agencies. Production work being done by an outside

contractor and MDNR is the contract administrator. All the partnership work is complete in the Upper Peninsula. There are 3 projects currently underway in the Upper Peninsula - Ottawa National Forest is scheduled for completion next fiscal year, 2 units of the Hiawatha National Forest – central and eastern Upper Peninsula sections. There is a large group of projects in the southern lower peninsula that are currently underway. Hope to have all partnership work done by the end of September. That will complete first time coverage of the state. There will be DOQs available from either 1992 or 1998 series for the entire state. MDNR is building a DOQ archive and Sherm distributed a current DNR Archive status map. The USGS product is in UTM projection and GeoTiff format. MDNR is reprojecting to Michigan GeoRef and creating a MrSID format for each DOQQ. The archive will reside on the MDNR server and is only accessible internally. The plan in the near future is to make available through the MDNR web site in MrSID to be accessible to everybody. The 1998 color products compression ratio is 20:1 and 1992 black and white compression ratio is 10:1. MDNR is doing this in-house and using ERDAS IMAGIN to reproject.

Bill Enslin, MSU, asked if there are digital elevation model (DEMs) products in the works.

Sherm Hollander, Michigan Department of Natural Resources (MDNR), responded that there are DEMs created and MDNR has the data. Will probably put on their web site.

Rob Surber, MIC, asked if these are mosaics.

Sherm Hollander, MDNR, responded that they are in the standard quarter-quad format. They are not designed for mosaic, because there is no color matching or tonal matching between units. The typical size for MrSID is 4 megs for black and white and 7-8 megs for color. MDNR hopes to get an extension for their partnership with USGS and are anticipating a Phase 3 in 2002 for getting 1998 coverages for Upper Peninsula and southern Lower Peninsula.

Jeroen Wagendorp, Allegan County, asked if the 1998 had been flown, is MDNR looking for a way to pay for the processing of the final product.

Sherm Hollander, MDNR, responded that the Imagery has been acquired and the work in progress is to rectify the imagery to DOQ specifications.

Rob Surber, MIC, asked if it is noted which portion is 1999.

Sherm Hollander, MDNR, responded that it is all mixed.

Everett Root, MIC, added that the date is in the header file.

Sherm Hollander, MDNR, commented that MDNR is assembling a database as part of the archive that has all the image dates in it.

Rob Surber, MIC, commented that this is an important delivery because repositioning comes after this.

F. Imagery Program

Eric Swanson, MIC, reported that he would reconvene the group to discuss the Imagery Product within the next month. National Aeronautics and Space Administration (NASA) has released a Broad Area Announcement. NASA is making grants available to state and local governments for the utilization of imagery application development. A group looked how to bring into the state and use in other imagery programs. One meeting was held in February and got good feedback on what the organizational interests would be. Would like to summarize and move forward. Want to get on board and get NASA involved. It would provide leverage for the state of getting imagery flowing into the state and building an expert network around the state. There is more to come on this.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Sherm Hollander, MDNR, had nothing else to report.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that they are anticipating population data so they can do heads-up planning. For their Highway Performance Monitoring System (HPMS), MDOT collects random samples of roadway information for Federal Highways each June. They have been using 1994 MALI data for the

HPMS. Finance will submit project information using the route number system in LRS, which is the PR number and by October will create new LRS from the framework. MDOT plans to have sufficiency data use framework and they are working with MSI to have project information coded to framework for finance to use for their reports. MDOT is integrating framework into all their business processes. They are interested in PR-finding tools for employees who used to control sections. They are exploring having Act 51 map updates produced at MIC. Federal Highway Administration (FHWA) may tour MIC since their money supports framework. MDOT received Version 1 of the North Region. MDOT created an ArcExplorer-themed version of the Superior Region on CD is available for MDOT customers who may not have Geographic Information Systems (GIS) or Internet access.

VI. Michigan State Police (MSP) Projects and Activities

Eric Nischan, Michigan State Police (MSP), reported that the MSP GIS Working Group met. They want to integrate GIS department-wide and use framework. Rob Surber, MIC, attended and explained framework and the project. There was a lot of positive feedback about the framework. The group will be having quarterly meetings.

VII. Michigan State Industries (MSI) Projects and Activities

Carol Woodman, Michigan State Industries (MSI), reported that they have received the Superior Region list from MDOT on March 26 to begin work on the PR finder project. Also working on building AMLs to improve efficiency to input data and working with MDOT to determine the output of the finished product. It will have the job number, beginning and ending mile points.

Joyce Newell, MDOT, commented that the extent of the projects changes over the life of the projects. MDOT needs a PR finder that project engineers can look at. Promised project people that they would catch them up-to-date with all current and future projects on framework.

Carol Woodman, MSI, added that there are 5-6,000 projects in the Superior Region alone.

VIII. MIC Projects and Activities

A. Census 2000 Data

Rob Surber, MIC, stated that the Census 2000 data is here and P.L. data on the MIC web site. Redistricting will use Census TIGER. There are problems as it relates to the Voting District Layer (VTD). The VTD does not line up with city and township boundaries - 47 counties throughout the state do not match. If building with a combination of Minor Civil Divisions (MCD) and VTDs, you may end up double-dipping the population because they don't always line up correctly. MIC is trying to identify the blocks.

Eric Swanson, MIC, commented that there are probably a few hundred people affected statewide, but it is a hair-pulling problem. Cedar Springs, Kent County, has two people on an island in Solon Township. If you add Cedar Springs MCD with Solon Township MCD, it is correct. If you add Solon Township precinct and Cedar Springs precinct, it is correct. If you add Cedar Springs MCD and Solon Township precinct there are two extra people – it double counts them.

Rob Surber, MIC, added that there is a problem for Grand Rapids Township.

Eric Swanson, MIC, commented that he met with the Bureau of Elections Director, Chris Thomas, who is responsible to deliver P.L. data and maps to both majority parties in each county, which will be mailed next week. Eric explained what the problems are and MIC's role is to identify the jurisdictions that have problems and inform the county clerks. MIC is going to do some hand-work where this problem occurs. This is not a huge problem, but it is a frustrating problem if they don't understand why they have extra people.

Rob Surber, MIC, stated that the county redistricting laws talk about minimizing precinct splits. Clerks have to administer elections and have different ballets for different county commissioners. Precincts are important building blocks for drawing boundaries. Clerks will be getting a complete set of

VTD boundary maps, but the scale may not show underlaps and overlaps, but a GIS will find it. If the county commissioner district plan is challenged must go to actual counts.

IX. Michigan State University (MSU) Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, nothing to report. Will do a demonstration at the end of the meeting.

X. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County, reported that they received their November 2000 ortho's. Also got the TINs in ArcInfo format. A TIN is used to produce three-dimensional images of area.

Bill Enslin, MSU, added that a TIN is a Triangulated Irregular Network. Elevation is represented with triangles instead of squares.

Jeroen Wagendorp, Allegan County, commented that with one-foot pixels on digital ortho's you could produce 4-foot contours for the entire county, but developers want 1- or 2-foot contours. This is an important pre-assessment tool for developers. Can raise the threshold quite a bit based on preliminary data. In the past, we were stuck with using digital rastor graphics (DRGs). It increases confidence. It contains numerous break lines along steep sections and is easy to find river bottoms. Jeroen is as excited about the TINs as he is about the ortho's. TINs take a lot of processing hardware, there are approximately 3 million points for the county. The designated mapping scale objective for digital ortho's is 'at or below' 200 feet per inch. Based on that formula you can do 4-foot contours and that meets first order national mapping standards. The contractor was TRW. The scale flown at was approximately 1:1,320 and was flown in April 1999.

XI. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they have quarterly regional meetings. Their Education Subcommittee is sponsoring a GIS Workshops geared toward to local and county government. The first workshop focused on building a Utility GIS and about 40 people attended. The next workshop is scheduled for April 18 and the focus is ArcIMS. The information will be posted on the IMAGIN web site. SEMCOG is focusing effort on creating block level geography on framework. This will be more work than they thought. It is not a simple update – a lot of manual work needs to be done. They are also gearing up for their land use update to 2000.

Rob Surber, MIC, stated that MIC has created a program to develop and compare 1990 census data to 2000 census data. Will reaggregate for whatever level of geography needed. Will split block level and deal by area and there is a rounding fix in the process. This is in TIGER, but there will be a relationship file created. An equivalency table can be generated from it, but any block that is split has an area that is split and that is applied to the data. Rounding will be handled so that parts of the split blocks added up to the original total.

Laura Tschirhart, Tri-County Regional Planning, reported that they turned in corrections for the land use to the consultants, HNTB. Expect to have the corrected product in two weeks.

Sherm Hollander, MDNR, added that they were invited to do the preliminary evaluations.

Phil Lund, REGIS, reported that Rob Surber, MIC, and a representative from MDOT spoke with REGIS's consultants about integrating street centerline with framework. Will have more communication with the MIC in the near future.

XIII. Other Issues

Eric Swanson, MIC, reported that MIC got involved with serving as a focal point state government agencies involved are involved with the tax reverted property process primarily in the city of Detroit. A

hold was put on all properties going through the tax reversion property process within the city of Detroit. The 1997 properties have gone through their redemption process – the state owns approximately 2,200 properties in the city. The MDNR serves as the agent to handle the tax reversion process; Michigan Department of Management and Budget (MDMB) serves as the agent to do demolition of abandoned structures; Department of Treasury serves as agent to clear deeds, titles, etc.; Michigan State Housing Development Authority (MSHDA) serves as agent to go through the disposal process and works with the non-profit groups; Michigan Economic Development Corporation (MEDC) serves as agent to clear title on properties and make them available for new development; Department of Corrections (DOC) serves as agent to use prisoners to do cleanup; Michigan Department of Environmental Quality (MDEQ) serves as agent to do assessments; and the governor's office is involved to oversee these departments. MIC's role is to provide a centralize database to assist these agencies with a tool to manage the process. Bill Enslin, MSU, has brought this into the viewing technology. The application is in pro-type mode but moving into the reality of a true administration system. There are several thousand more properties that will be coming on line via the 1998 reversion process clearing in 2001. And then the 1999 reversion process clearing in 2002.

Bill Enslin, MSU, did a demonstration of the tax reverted properties viewing technology.

XIV. Next Meeting Date

May 3, 2001, 10 a.m. until 12 p.m., George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910